

One Messer

Table of Contents

Sustainability at Messer	3
Planet	5
Safety	10
People	12
Business Conduct	17
Customers	19
Ratings	22

Sustainability at Messer

Executive Management Board statement on our Sustainability Commitment

At Messer, sustainability is at the heart of our strategy and our responsibility. Since 2014, Messer has published a sustainability report on a voluntary basis, reaffirming each year how essential sustainable development is to our company, to our people, and to society at large. We recognize our impact on both people and the environment and are committed to acting responsibly in everything we do.

Messer is committed to upholding robust compliance policies as well as a Code of Conduct and expects all business partners to comply with these standards. At the same time, we continue to advance initiatives that reduce our impact on the environment, safeguard human rights, and foster a culture where all of us accept, respect and value the individual personalities and truly welcome diverse ideas and perspectives.

Our commitment to Environment, Social, and Governance (ESG) principles remains strong. These principles guide us as we create long-term value and contribute to meeting the important requirements of our time thanks to ‘Gases for Life’ and innovative gas solutions.

Bernd Eulitz
CEO

Helmut Kaschenz
CFO

Dr. Werner Hickel
COO Asia

Virginia Esly
COO Europe

Elena Skvortsova
COO Americas

Messer’s headquarters is located in Bad Soden, near Frankfurt, Germany.



Messer’s Commitment to Sustainability

As a specialist in industrial, medical, electronic, and specialty gases, Messer considers sustainability a core part of its strategy and actively does its part to help protect our planet, value people and promote best business practices. Our Sustainability Commitments provide the framework that guides our actions across the organization.

We have completed a double materiality assessment, working with multiple stakeholders to identify and prioritize sustainability topics. Our global sustainability program has executive oversight and defines strategies, actions, policies, programs, and reporting. Our most important material topics are:

- **Climate:** We help protect our environment, conserve resources, and improve the efficiency of our processes. Our climate focus enables us to address climate risk and contribute to a successful transition to a decarbonized economy, realizing our opportunities while also recognizing our responsibilities.
- **Safety:** We are committed to safeguarding the health and ensuring the highest level of safety for our people. We want all our employees and those who work with us throughout the value chain to go home safely every day.
- **People:** We understand that our strength lies in the people working at our sites and across our value chain. We focus every day on cultivating a culture of employee orientation, trust and respect.

- **Governance:** We act with a high degree of integrity. Our operational strategy and processes are geared toward providing an excellent platform for growth, value creation and entrepreneurial agility, enabling us to be the first choice for our customers and employees.

In November 2023, Messer fully acquired Messer’s operations in the Americas and Western Europe (Messer Industries Group), which had been managed in a joint venture with CVC Capital Partners plc since 2019. As of 2024, our sustainability directive is under the guidance of the Chief Sustainability Officer and the Executive Management Board. Through the Sustainability Office, we coordinate our Environmental, Social and Governance (ESG) activities worldwide in line with Messer’s business strategy.

This report brings together highlights, key achievements and initiatives from 2024 that reflect our commitment to sustainability.

Our business model

Building on more than 125 years of history, Messer is the world’s largest privately held specialist for industrial, medical, electronic, and specialty gases and generated consolidated sales of approximately 4.5 billion euros in 2024.

Messer manufactures and supplies oxygen, nitrogen, argon, carbon dioxide, hydrogen, helium, shielding gases for welding, specialty gases, medical gases, and food gases as well as many

different gas mixtures. Air gases account for the largest share of our sales. The portfolio is further complemented by valued-added services including application technologies, hardware, and others.

Gases are indispensable in most industrial processes and help to meet the important requirements of our time. With customized gas solutions, Messer ensures greater safety, sustainability, efficiency, progress, and quality for its customers. Clean hydrogen, carbon capture and storage (CCUS), and oxyfuel technology play a significant role in the decarbonization of industry and mobility.

Messer’s ‘Gases for Life’ are used in industry, environmental and climate protection, the food and beverage industry, the electronics industry, welding and cutting technology, additive manufacturing, construction, for new energy, new materials and research and science. Our medical and pharmaceutical gases and solutions used in healthcare, make Messer a reliable partner for essential, life-sustaining products.

Our company has a resilient business model due to regional, product and distribution diversification, mission criticality of products (typical for the industrial gases sector), many non-cyclical end markets, long-term contracts, and a flexible cost structure.

Planet

As an energy-intensive company producing and trading industrial gases, Messer has responsibilities for and is committed to environmental and climate protection. We monitor our own production and distribution processes to ensure the sustainable use of energy, actively mitigate climate risks and continue to identify decarbonization levers.

Greenhouse gas emissions

Messer calculates its emissions with reference to the World Business Council for Sustainable Development’s Greenhouse Gas (GHG) Protocol and considers best practices for the industrial gas sector. In 2024, Messer updated its methodology and boundaries, resulting in the inclusion of additional emissions sources. Emissions are calculated using a financial control approach and are reported on a fiscal year basis for the Messer SE & Co KGaA scope of consolidated entities.*

** Scope of consolidated entities as listed in the 2024 Annual Report of Messer SE & Co KGaA*

Oxygen, nitrogen, argon, and rare gases are produced in air separation units.



Messer’s 2024 Scope 1 and 2 emissions were verified by an independent third-party to a limited level of assurance according to ISO 14064-3 Second Edition 2019-04: Greenhouse gases - Part 3: Specification with guidance for the verification and validation of greenhouse gas statements.

Our GHG inventory consists of Scope 1, 2, and 3 emissions. Scope 1 emissions are direct emissions from our own operations and Scope 2 emissions are indirect emissions from our consumption of electricity and steam paid by Messer. Our Scope 1 and 2 emissions include facilities that were on stream or came on stream during the fiscal year. Scope 3 emissions are indirect emissions produced by our upstream and downstream value chain.

Messer’s 2024 Scope 1 and 2 emissions increased compared to 2023, due to methodology and boundary changes. Nonetheless, Messer has continued to make progress against its target to reduce the emissions intensity of its global activities by 40 % by 2030 compared to 2019, measured in metric tons of CO₂e per thousand euros of EBITDA (location-based method). As of 2024, we have achieved a reduction of 41 % with a 2024 intensity of 3.31 compared to 5.57 in our base year 2019 (location-based).

Messer is revising its Scope 3 methodology and completing an assessment of 2024 its inventory to confirm material categories.

Greenhouse gas emissions

	Unit	2023	2024*
Scope 1	million metric tons of CO ₂ e	0.25	0.32
Scope 2 (market-based)	million metric tons of CO ₂ e	4.49	5.16
Scope 2 (location-based)	million metric tons of CO ₂ e	4.84	4.29
Total Scope 1 and 2 (market-based)	million metric tons of CO ₂ e	4.74	5.49
Total Scope 1 and 2 (location-based)	million metric tons of CO ₂ e	5.09	4.62

* 2024 emissions are calculated using a revised methodology and boundary

Greenhouse gas emissions intensity (GHG)

	Unit*	2023	2024
GHG emissions intensity (market-based)	metric tons of CO ₂ e per thousand euros of EBITDA	3.69	3.93
GHG emissions intensity (location-based)	metric tons of CO ₂ e per thousand euros of EBITDA	3.96	3.31

* EBITDA as reported in Annual Report of Messer SE & Co. KGaA

Electricity

Messer is committed to managing the resources it uses in a sustainable manner. Our main focus is on electricity, as it is both a key cost driver and source of emissions. We monitor our usage closely to continuously optimize consumption, and we aim to increase the share of electricity with low or zero emissions in our energy mix.

Under Messer’s revised boundaries, total energy consumption in 2024 has increased due to additional sites included. Our share of renewable electricity (including hydro) has decreased from 33.4 % in 2023 to 28.2 % in 2024, due increased consumption from added sites and residual mix emission factor updates.

Electricity consumption

	Unit	2023	2024
Total electricity consumed	TWh	11.6	12.4
Share of electricity that is renewable (including hydro)	TWh	33.4 %	28.2 %

Levers for decarbonization

Messer is taking concrete action to reduce its carbon footprint and contribute to the energy transition. Our climate transition planning includes the following decarbonization levers:

- Purchasing low-carbon and renewable electricity, as well as unbundled energy attributes to incentivize the development of renewable generation.
- Implementing projects for self-generation of low-carbon and renewable electricity.
- Improving the energy efficiency of existing processes through monitoring plant performance, maintenance activities, and

process modifications to reduce energy consumption, while continuing to apply energy efficiency and flexibility principles in the design of our new plants.

- Increasing the flexibility of assets and operations to optimize energy consumption and in some cases, enable the greater use of renewable energy.

Environmental and energy management systems

Messer employs a globally recognized environmental management system and environmental protection policies in each of its regions. These policies and the environmental management systems of all subsidiaries are consistent with the international ISO 14001 standard and the recommendations of the European Industrial Gases Association (e. g. EIGA IGC Doc. 107 – Guidelines on Environmental Management Systems). In 2024, 103 of our sites had their environmental management systems externally certified in accordance with ISO 14001 (previous year: 94).

Messer further demonstrates its commitment to the environment by applying recognized standards in energy management and environmental management systems. Our energy management system is ISO 50001 certified in Romania, Hungary, Czech Republic, Croatia, France, Germany, Spain and Vietnam. ISO 50001 is a standard which specifies management practices that are important to obtain improved energy performance.

Optimizing air separation processes to reduce greenhouse gas emissions

Producing air gases generates no direct greenhouse gas emissions; however, it does result in indirect emissions linked to the energy we purchase and use. At Messer, the majority of energy consumed is through air separation units. Optimizing how we use this energy helps to reduce greenhouse gas emissions associated with the production of air gases.

Messer has successfully implemented AspenTech's DMC3 technology at 22 air separation units (ASUs) in Asia and Europe since 2019. The noticeable advantages of this asset optimization technology are improved process stability, lower energy consumption and higher yields of valuable products such as argon. For example, the energy balance can be optimized by matching the gas production more closely to the customer demand.

The successful implementation in the ASUs located respectively in Ningxiang and Anning, China, as well as in Dung Quat and Hai Duong, Vietnam, allows Messer to optimize its product offering and to better serve its customers without increasing power consumption. At our plants in Smederevo and Bor, Serbia, our process optimization software prevents the emission of about 4,500 metric tons of CO₂e each year.

AspenTech's DMC3 technology was successfully implemented in the air separation units located in Dung Quat, Vietnam.

Austria: Hydropower Power Purchase Agreement

Messer in Austria has signed a pioneering long-term supply contract for renewable electricity with VERBUND, Austria's leading energy company and one of the largest producers of electricity from hydropower in Europe. This contract secures a sustainable supply of

electricity from local hydropower plants for five production sites of Messer in Austria. Using renewable energy to meet the energy needs of these sites represents a significant step toward reducing their environmental impact.



The air separation unit in McGregor, TX, operates substantially off energy supplied from an onsite solar panel array.



United States: Air separation unit powered by an onsite solar array

Since July 2024, Messer has been substantially powering its ASU in McGregor, Texas, with renewable electricity from a co-located solar array, the first such project in the United States.

At its maximum output, the solar array is capable of supplying the full electricity requirements of Messer's ASU, which produces oxygen and nitrogen for various customers in the region. Messer developed the project with its solar partner under a 25-year agreement. Over this period, the solar array is expected to reduce Messer's greenhouse gas emissions under Scope 2 compared to buying power off the electricity grid in Texas.

Safety

Safety is our license to operate. It is embedded in our corporate values and our internal guidelines. Messer’s aim is to continuously improve its safety culture, demonstrated with leading indicators and addressing lagging indicators through problem solving. We operate under our global SHEQ Commitment (Safety, Health, Environment, Quality), with regional teams that drive behaviors according to local requirements.

At Messer, workplace safety starts with wearing the right Personal Protective Equipment (PPE).



Messer’s commitment to safety is demonstrated through improvements in several metrics, The number of work-related accidents in 2024 was 40 (prior year, 54). The lost time accident rate was 1.69 (prior year 2.32) and the accident severity rate was 30.95 (prior year 83.44). The improved indicators were driven by significant reduction in the number of work-related accidents in Canada and Europe, and influenced by safety management processes and regional safety initiatives to enhance behaviors to prevent incidents and accidents in the Messer regions.

Our safety management processes include behavior-based safety, incident management, training, and others. Safety officers investigate and record safety-related incidents in a comprehensive management system. Information and training materials help to further improve the safe handling of our products and use of our application technologies as well as promote safe behavior among employees.

Safety of our employees

	Unit	2023	2024
Number of work-related accidents for employees	number	54	40
Lost time accident rate	per million working hours	2.32*	1.69
Accident severity rate	per million working hours	83.44	30.95

* 2023 Management report reported 1.4, a partially prorated lost time accident rate with 2 months of the Messer Industries acquisition

Safety initiatives in 2024

Safety is part of our culture. We are developing training and programs to continue moving toward our goal of zero accidents. This is demonstrated every day in our behavior and in the way we operate our business. Our employees are accountable for controlling risks in their daily work activities through safety work permits, job safety analyses and safety observations.

In Asia, we emphasized safety improvement programs across our sites in China through an intensive training session that focused on behavior-based activities and visible leadership. The comprehensive health and safety management system, applied to all Messer sites in Asia, integrates stringent controls guided by corporate policies and local government regulations. It upholds international best practices and is aligned with standards including ISO 45001 (occupational health and safety).

In Europe, the COMPASS program is our strategic initiative to strengthen safety as a core value and achieve zero-incident operations across our European subsidiaries. In 2024, the program implemented structured safety practices, including Last Minute Risk Analysis, Life Saving Rules and a Safety topic of the month into our daily routines. This proactive approach, supported by leadership, change management and a continuous improvement mindset, yielded a significant business outcome with a 50 % reduction of work-related accidents with lost time compared to previous year. This result highlights our tangible progress toward our safety goals and demonstrates how the COMPASS program is building a resilient, high-performing safety culture that directly impacts our operational excellence.

In the Americas, the program that originated in Colombia, “Safer Together,” was successfully expanded from operational leaders to all leaders in every country, who are working to emulate or adapt it to the appropriate cultural environment. By prioritizing open communication, trust, and accountability, our leadership reinforces the message that safety is not only a shared value but also a daily practice. In addition, programs have been developed within each country to foster a collaborative safety culture. The success of these programs is demonstrated through improved morale and a collective sense of responsibility for ensuring a safe and healthy workplace. It is also reflected in the results by achieving 12 months without a lost time incident in Colombia and a 50 % reduction in recordable work-related accidents in Canada.

People

Messer's team is knowledgeable, dedicated and committed to our company values. We promote a non-discriminatory, merit-based, inclusive and employee-oriented culture founded in trust and mutual respect:

- We invest in our employees and encourage everyone to reach their highest potential through experience, education, training, and other forms of development measures. Our hiring and promotion decisions are based on principles of non-discrimination and merit.
- We promote an inclusive mindset to build a great work environment. We value different points of view and experiences, enabling an entrepreneurial, agile, creative environment, where everyone can thrive.
- We positively impact the communities where we live and work through engagements at both corporate and local levels.
- We value our stakeholders, engage in discussions, and communicate about Messer's environmental, social and governance-related programs, progress, and achievements.
- We are committed to nurturing a workplace of trust and respect, where every individual is seen, heard and valued. By welcoming a wide range of perspectives, experiences, and ideas, we continue to shape an employee-oriented culture that supports innovation, people development and collaboration, so everyone has an opportunity to thrive.

More than 11,800 Messer employees collaborate worldwide based on trust and mutual respect.



Our Code of Conduct and Declaration of Principles set the tone, underscoring our commitment to human rights and working conditions as outlined in internationally recognized frameworks such as the Ten Principles of the UN Global Compact, the labor standards of the International Labor Organization (ILO) and the International Bill of Human Rights.

Our practices and programs are designed to ensure our outreach, development and retention practices are equitable and do not discriminate against any individual.

Supervisory Board (from left to right, from top to bottom): Stefan Messer (Chairman), Dr. Johannes Fritz (Deputy Chairman), Dr. Werner Breuers, Elisabeth Dong, Heike Niehues, Sabine Scheunert, Dr. Nathalie von Siemens, Geoff Wild, Maureen Messer-Casamayou (without image)

Messer demographics

Messer governance body

Messer’s governance body is composed of two tiers. The management of Messer SE & Co. KGaA is the responsibility of the Management Board (Executive Management Board) of the general partner, Messer Management SE. Its management is monitored by a Supervisory Board that assists it in strategic decisions and constantly

demands sustainable action in addition to business success. Messer’s Supervisory Board is chaired by Stefan Messer and consists of nine men and women with professional experience in industrial gases, management consulting, technology, education, and private equity.



The Executive Management Board is made up of five men and women, including the CEO as Chairman of the Executive Management Board, CFO and three Chief Operating Officers who represent the operating businesses in the Asia, Europe, and Americas regions. The educational backgrounds of the members are diverse, including Business Administration, Business Economics, International Management, Physics, Engineering and Linguistics, with professional experience in the industrial gas business, financial markets, operations, as well as the bioscience, wildlife conservation, oil and gas, and healthcare sectors.

Executive Management Board



Bernd Eulitz
CEO



Helmut Kaschenz
CFO



Dr. Werner Hickel
COO Asia



Virginia Esly
COO Europe



Elena Skvortsova
COO Americas

Messer employees

In 2024, Messer employed 12,066 people (headcount*), compared to 11,725 in 2023. Messer’s workforce includes employees in 30 countries and across many generations. The proportion of women in the total workforce was 27.5 % compared to 26.7 % in the previous year. The proportion of female managers in the 1st and 2nd management levels has increased and stood at 31 % in 2024 compared to 27 % in 2023, reflecting our commitment to fostering a culture of trust, respect, merit, and employee orientation, where every employee can thrive.

Employee and career development

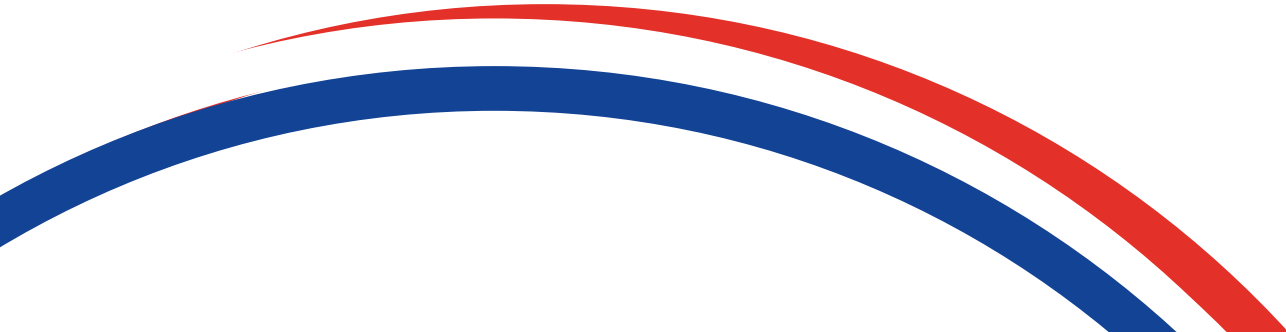
Employee development is a key pillar of our commitment to long-term sustainability. By investing in continuous learning, upskilling, and career growth, we empower our people to adapt to evolving business needs, drive innovation, and contribute to our organizational goals. Supporting employee development not only strengthens our workforce but also reinforces our responsibility to foster inclusive teams and personal growth.

Awards and initiatives

Messer SE & Co. KGaA is a member of the Diversity Charter, Germany’s largest employer initiative to promote diversity in the workplace. It is also a signatory of the Women Empowerment Principles (WEP), an initiative established by UN Women and the UN Global Compact, demonstrating its commitment to the gender equality dimensions of the United Nations Sustainable Development Goals.

Through partnerships with globally recognized initiatives and the implementation of targeted programs, we continue to advance our goals while engaging employees and partners.

** The 2024 Annual Report of Messer SE & Co KGaA reported the 12-month average FTE (11,701). In Sustainability reporting, we consider headcount as of December 31, 2024 (12,066).*



The following examples from 2024 highlight some of the renewed recognitions we have received, and a first-time certification in Brazil to illustrate our ongoing efforts:

- Corporate Equality Index (CEI) from Human Rights Campaign in the US
- HIRE Vets Medallion in the USA
- Candidate Experience Awards (CandE) in Brazil, Canada, Colombia, and the United States
- Great Place to Work Certification in Brazil, Canada, Colombia, Chile and the United States
- Great People Mental Health certification in Brazil – First time certification in 2024

Commitment to local communities

At Messer, we positively impact the communities where we live and work through engagements at both corporate and local levels. The international Messer team acts in a helpful and socially committed manner. We look at the needs of our communities and support local aid projects. The Messer teams contribute to a wide range of initiatives that improve lives, whether that’s improving access to quality education and fostering training in scientific fields, promoting health, or responding to urgent needs like disaster relief.

China

Just before the Children’s Day holiday, employees from Meifeng Messer in Sichuan visited the Mianyang Children’s Welfare Institute. Most of the children there have physical disabilities that limit their daily activities. To bring them joy, Messer employees donated sports equipment, art supplies, and favorite snacks. They also spent time playing games and celebrating together. For the children, the visit turned an ordinary day into one filled with laughter, warmth, and encouragement.

Employees from Messer Ningbo in Zhejiang launched a “Green Action” campaign to collect litter and recyclables in the neighborhoods and parks surrounding the factory. Equipped with gloves and trash bags, they helped keep public spaces clean and welcoming for everyone.

Hungary

Messer’s volunteer team participated in the 5th Lake Tisza PET Cup to help collect large amounts of plastic and other waste from the floodplain over three days. They used a raft made from compressed PET bottles filled with dry ice to increase buoyancy. The event aimed to combat recurring plastic pollution in the region.

A Messer team in China worked together to keep public places clean during the “Green Action” campaign.



A Messer team in Hungary participated in the 5th Lake Tisza PET Cup.



Spain

Messer in Spain continued collaborating with the Rovira I Virgili University in Tarragona, located near the company’s main production sites. One aspect of this cooperation is the “Messer Award”, which recognizes the best integrated projects by undergraduate students in chemical engineering and food bioprocess engineering. Students from both programs compete in teams. The winning teams visited our production site in Vilaseca and joined a network meeting with young engineers from our team.

Students visited Messer’s production site in Vilaseca, Spain.



United States

At Messer in the Americas, employee resource groups (ERG) organized in particular initiatives to support communities. The WoMen’s Alliance ERG collected new bath towels for Safe+Sound Somerset, a local New Jersey based non-profit dedicated to supporting victims of domestic abuse by providing safe housing. The towels were urgently needed for the organization’s safe houses and for families transitioning into permanent residences.

The Messer Women’s Alliance ERG collected new bath towels to support Safe+Sound Somerset in the US.



The Veterans ERG brought together employees at Messer’s office in Bethlehem, Pennsylvania, to paint a stunning mural titled "Soaring Eagle." The Messer team partnered with the Foundation for Hospital Art and painted the mural for Veterans Day. The artwork was donated to the Perry Point Veterans Administration Medical Center to comfort patients as they await treatments and services.

The mural “Soaring Eagle” was painted for Veterans Day by the Veterans ERG in the US.



Business Conduct

Messer stands for responsible corporate management, focused on sustainable value creation and trusting cooperation with its shareholders, business partners, employees and other stakeholders. Our principles and processes require strict compliance with laws and regulations, ethical and responsible behavior, and are an integral part of our Compliance Management System ("CMS"). Our CMS is based on internationally and nationally recognized standards for good and responsible corporate governance.

At the foundation of our CMS is the Messer Code of Conduct, which provides a binding framework for dealing with conflicts of interest and for complying with applicable laws, regulations, and local and company-internal operating rules that affect our business. The Code of Conduct is intended to ensure that Messer's values are communicated to all managers and employees.

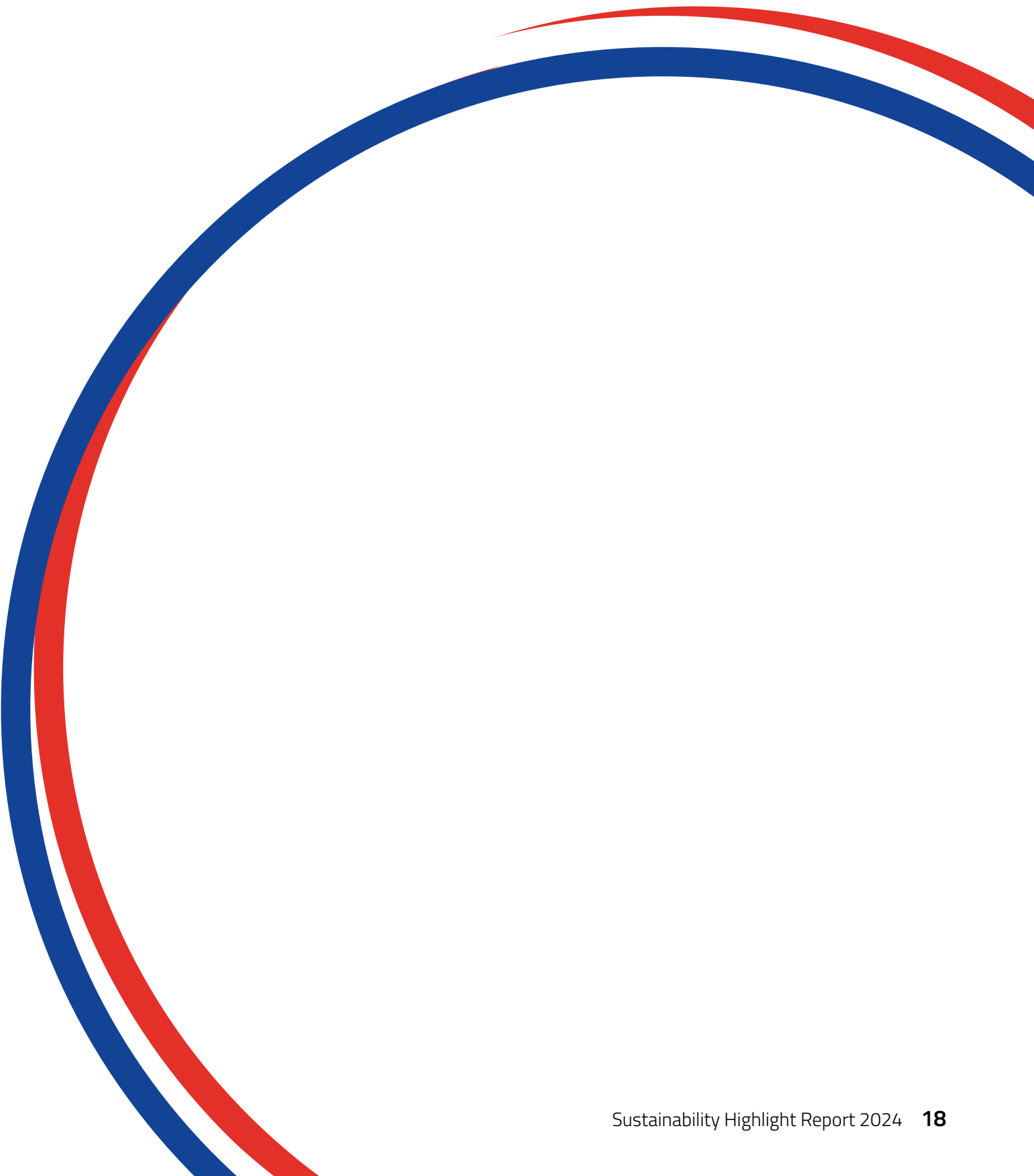
Messer teams are committed to compliance, good governance, and ethical business conduct.



Messer SE & Co. KGaA has established compliance guidelines for its companies. The overarching principles are contained in the Code of Conduct, which is supplemented by the Business Partner Code of Conduct, the Declaration on Human Rights and Working Conditions, the Corporate Sustainability Commitments, as well as more specific guidelines on combating corruption and bribery, exports, and other compliance issues. Our CMS is supported by clear commitment from the Executive Management Board. Management and employees are regularly informed and trained on the content and any changes to these and other guidelines and codes of conduct.

The Messer Integrity Line is a communication platform that facilitates the reporting of concerns and (possible) violations. Employees can contact designated individuals to provide or report indications of compliance violations. Compliance violations are appropriately addressed and used as an opportunity to consider further preventive measures. The Integrity Line is also available to business partners and other third parties and can be accessed on the website of each local company.

Each year, the Chief Compliance Officer submits a global compliance report to the Executive Management Board and the Supervisory Board.



Customers

Customer focus has always been a top priority for Messer. We engage with our customers through a multi-channel approach that fosters reliability, transparency, responsiveness, innovation, and alignment with their needs. In doing so, Messer ensures it offers relevant products, gas applications or associated services, maintains a reliable product supply, promotes safety, and meets customer expectations while supporting their sustainability goals.

Our gas applications help customers improve their productivity, drive progress, and contribute to reducing emissions. To drive forward the decarbonization of industry and mobility, Messer applies over decades of know-how to technologies such as the recovery, use, and storage of carbon dioxide, applications with clean hydrogen and efficient high-temperature processes.

Messer offers comprehensive solutions for hydrogen-powered buses, including hydrogen supply, infrastructure and all services required for operations.



Carbon Capture as a Service

While carbon dioxide is essential for life and industry, excessive carbon dioxide emissions caused by human activity are considered to be the main cause of climate change. This is why Messer founded the service brand ZeCarb. ZeCarb stands for “Zero Carbon”. ZeCarb’s services help to counteract climate change: industries that are difficult to decarbonize are supported in capturing, storing and / or recycling carbon dioxide by means of “Carbon Capture as a Service” (CCaaS; CO₂ recovery as a service). ZeCarb utilizes Messer’s decades of experience in CO₂ recovery and has a global partner network to capture various CO₂ sources and capacities worldwide.

Example photo of a CO₂ recovery plant from Messer.



Messer ensures the reliable and efficient supply of clean hydrogen through targeted investments, such as in innovative trailers.



Hydrogen

Hydrogen is considered a key factor in the decarbonization of industry and mobility. Messer is focusing on selected segments in order to be able to respond more specifically to the associated requirements. These are the “H₂ One-Stop Shop”, a holistic service for the operation of bus fleets, the “H₂ Refueling Solution”, which bundles experience, expertise and safety in hydrogen supply and refueling, and the “H₂ On-Site Concept”, which includes cost-optimized solutions for the on-site production of clean hydrogen including the optimal use and /or marketing of all by-products. Safety is crucial for the use of hydrogen on a large scale. As an industrial gas specialist Messer has many years of experience with hydrogen - from quality assurance to filling technology and logistics, right through to application.

Oxyfuel applications

Many different types of furnaces are used in heating, melting, refining, cleaning, and calcining processes. They are used for the production of non-ferrous and ferrous metals, glass, ceramics, mineral materials and many other purposes. In these furnaces it is often beneficial to inject oxygen or other gases or to use oxyfuel combustion, which increases process efficiency and thus reduces greenhouse gas emissions. Messer offers tailor-made oxyfuel burner technology for a wide range of injection and combustion applications. These systems deliver high capacity, low downtime, low emissions, and can be easily adapted to existing processes.

Messer’s tailor-made burners are designed to meet the specific needs of oxyfuel combustion processes.



Recovered carbon dioxide and injection systems from Messer ensure precise pH regulation for the treatment of industrial wastewater.



Wastewater neutralization to support circular water management

Alkaline wastewater is generated in many industries such as steel production, construction, glass manufacturing, textiles, leather, and paper. Using recovered carbon dioxide and state-of-the-art injection systems from Messer to neutralize this wastewater is a proven and sustainable solution. Unlike mineral acids, recovered carbon dioxide doesn’t introduce chlorides or sulfates that can cause secondary pollution and limit water reuse. When dissolved in water, it forms carbonic acid and ensures precise and stable pH regulation while reducing the risk of over-acidification. This makes treated water easier to recycle within industrial processes, helps preserve this vital resource, and improves safety compared to handling strong acids.

Ratings

Our participation with ratings agencies provides input on ways we can continuously improve and advance to support our sustainability commitments. In 2024, Messer continued to disclose its environment and social commitments and progress to external rating agencies, as a further demonstration of its commitment to sustainability.

CDP

CDP evaluates the impact companies have on Climate and Water.

- CDP Climate: Messer improved to the Management level (B)
- CDP Water: Submitted for the first time in 2024 and scored at the Awareness level (C)

EcoVadis

EcoVadis evaluates environment, labor & human rights, ethics, and sustainable procurement.

United Nations Global Compact

The United Nations Global Compact (UNGC) is a voluntary initiative that encourages companies to align their operations with ten universally recognized principles across four areas: human rights, labor standards, the environment, and anti-corruption. As a participant since 2024, Messer completed its annual Communication on Progress for the first time this year.

Third-party disclosures help us identify where we can improve, and Messer teams turn these insights into action to drive change.



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